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ABSTRACT OF THE DISCLOSURE

A fuel cell system is provided with a fuel cell supplied with air and fuel to generate electric power output, a main air-flow passage supplying the air to the fuel cell, an air treatment unit located in the main air-flow passage, a bypass flow passage connected to the main air-flow passage in parallel with the air treatment unit, and a flow-passage change-over valve executing a change-over between the main air-flow passage and the bypass flow passage and allowing the bypass flow passage to supply the air to the fuel cell during start-up operation until a predefined condition is established.